

771
N 28/11

nature

REVIEWS

july 2014 volume 12 no. 7
www.nature.com/reviews

MICROBIOLOGY



Long-range interactions

Intragenomic viral RNAs talk to each other

CRISPR-CAS SYSTEMS

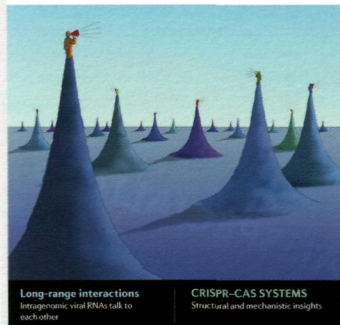
Structural and mechanistic insights



nature publishing group

nature
REVIEWS

MICROBIOLOGY

Long-range interactions
Intergenic viral RNAs talk to
each otherCRISPR-CAS SYSTEMS
Structural and mechanistic insights

► COVER: 'Long-range interactions' by Philip Patenall, inspired by the Review on p493.

EDITORIAL

457 A prize purpose

RESEARCH HIGHLIGHTS

459 Selections from the recent scientific literature

NEWS & ANALYSIS

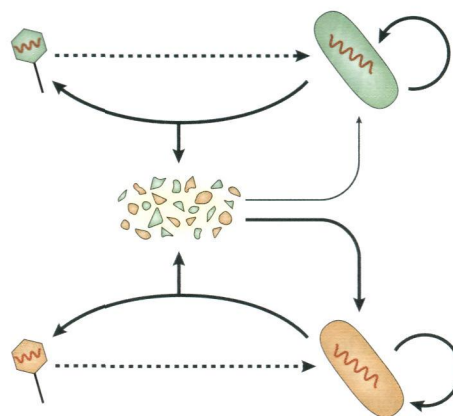
464 Genome watch Split reality for novel tick virus

ANALYSIS

519 The elemental composition of virus particles: implications for marine biogeochemical cycles

Luis F. Jover, T. Chad Effler, Alison Buchan, Steven W. Wilhelm and Joshua S. Weitz

Weitz and colleagues use a biophysical scaling model of intact virus particles to quantify differences in the elemental stoichiometry of marine viruses compared with their microbial hosts. They propose that, under certain circumstances, marine virus populations could make a previously unrecognised and important contribution to the reservoir and cycling of oceanic phosphorus.



EDITORIAL & PRODUCTION OFFICE

The Macmillan Building, 4 Crinan Street, London N1 9XW, UK
Tel: +44 (0)20 7843 3620
Email: NatureReviews@nature.com
www.nature.com/reviews/micro

CHIEF EDITOR Sheilagh Molloy
SENIOR EDITOR Christina Tobin Kährström
ASSOCIATE EDITOR Cláudio Nunes-Alves
ASSISTANT EDITOR Andrea Du Toit
COPY EDITOR Jennifer Thorley
ART EDITOR Philip Patenall
COPY EDITING MANAGER Catriona Rodwell
SENIOR COPY EDITOR Mariam Faruqi
EDITORIAL ASSISTANTS Emily Finn, Rebecca Cromie
MANAGING PRODUCTION EDITOR Judith Shadwell
SENIOR PRODUCTION EDITOR Simon Fenwick
ART CONTROLLER Susanne Harris
SENIOR ART EDITORS Patrick Morgan, Vicky Summersby
PRODUCTION CONTROLLER Natalie Smith
EXECUTIVE EDITOR Arianne Heinrichs
NATURE EDITORIAL DIRECTOR Ritu Dhand
EDITORIAL DIRECTOR Alison Mitchell

CUSTOMER SERVICES www.nature.com/help
PERSONAL SUBSCRIPTIONS subscriptions@nature.com
REPRINTS www.nature.com/reprints
ADVERTISING & SPONSORSHIP
www.nature.com/advertising
SITE LICENCES
www.nature.com/libraries/site_licenses/index.html
PRESS OFFICE press@nature.com
MARKETING marketing@nature.com

MANAGEMENT OFFICES

NPG LONDON The Macmillan Building, 4 Crinan Street, London N1 9XW, UK. Tel: +44 (0)20 7833 4000
NPG NEW YORK 75 Varick Street, 9th floor, New York, NY 10013-1917, USA. Tel: +1 212 726 9200
NPG ASIA-PACIFIC Chiyoda Building 2-37 Ichigayatamachi, Shinjuku-Ku, Tokyo 16200843, Japan. Tel: +1 212 726 9200
A list of other offices can be found at www.nature.com/npg/contact/offices.html

Copyright © 2014 Nature Publishing Group
Printed in Wales by Cambrian Printers on acid-free paper.

EDITORS



SHEILAGH MOLLOY



CHRISTINA TOBIN KÄHRSTRÖM



CLÁUDIO NUNES-ALVES



ANDREA DU TOIT